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Abstract of the Disclosure

Comparing the Position of Shared Objects

The present invention provides a computer network configured to define and update data structures within a shared computer-generated environment, wherein a local instantiation 1001 of one of said data structures is known as a duplicate master 805 and updates remote instantiations 1004 of said data structure known as duplicas 804 according to distance-based Position History-Based Dead Reckoning 906. Said updating operation 906 according to distance-based PHBDR minimises the amount of data 1402 transmitted for the purpose thereof and the quality factor 1601 implemented according to an improved embodiment of the present invention dynamically maximises (1501, 1502, 1503) the usage made of the network bandwidth 702 available at any time.

(Figure 14)